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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/437,554 | 11/10/1999 | ERLAND R. SANDSTROM | 2160-(FJ-99- | 8154 |

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EXAMINER

PATTERSON, MARC A

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 01/17/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

MF-9

| | | |
|------------------------------|------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/437,554 | SANDSTROM ET AL. |
| | Examiner Marc A Patterson | Art Unit 1772 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 November 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-50,74 and 77-85 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-50,74 and 77-85 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4,5,6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 – 50, 74 and 77 – 85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The terms ‘disposable,’ ‘tumbler,’ ‘fortified,’ and the phrase ‘biaxial toughness’ are indefinite. For purposes of examination, the term ‘disposable’ will be assumed to mean polymeric; the term ‘tumbler’ will be assumed to mean any container; the phrase ‘fortified rim’ will be assumed to mean a rim having a thickness greater than that of the sidewall; and the phrase ‘biaxial toughness’ will be assumed to refer to any polymeric material. Correction and / or clarification is required.

3. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase ‘haze value’ is indefinite. For purposes of examination, the phrase ‘haze value of less than 10’ will be assumed to mean ‘transparent.’ Correction and / or clarification is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 77, 80 and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Mc Chesney et al. (U.S. Patent No. 3,984,498).

With regard to Claim 1, Mc Chesney et al disclose an injection blow molded container (bottle; column 9, lines 44 – 48) formed from a polymeric material (column 2, lines 51 – 61) comprising a base forming the bottom of the container (the bottom of the cylinder is closed, thus also defining an outer edge; column 4, lines 13 – 29; Figure 2) and a sidewall (column 2, lines 21 – 25; it is therefore integrally formed with the base extending upwardly from the outer edge); the sidewall has a rim at its upper extremity which has a thickness greater than the adjacent portion of the sidewall (column 2, lines 21 – 25; Figure 2).

With regard to Claims 77 and 80, the tumbler consists essentially of styrene – butadiene copolymer blended with styrene – acrylonitrile copolymer (column 4, lines 1 – 12).

With regard to Claim 82, the copolymer is a rubber polymer and therefore constitutes an impact modifier.

6. Claim 74 is rejected under 35 U.S.C. 102(b) as being anticipated by Andersen et al. (U.S. Patent No. 5,506,046).

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Andersen et al disclose sheets of styrene – butadiene (column 26, lines 17 – 25) which are filled with nanometer – sized particles having a size in the range of visible – light wavelengths (10 nanometer to 100 micrometer; column 18, lines 49 – 59) and are transparent (column 72, lines 1 – 10); the sheets are used in the making of drinking tumblers (beverage containers; column 21, lines 28 – 36); the claimed aspect of a ‘transparent container’ therefore reads on Andersen et al.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 – 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willbrandt (U.S. Patent No. 5,433,337).

With regard to Claim 2, Willbrandt discloses a container (cup; column 1, lines 8 – 15) formed from a polymeric material (a styrene; column 6, lines 12 – 26); the cup comprises a base (it therefore forms the bottom of the cup and defines an outer edge; column 2, lines 3 – 18), and a sidewall (it is therefore integrally formed with the base extending upwardly from the outer edge; column 2, lines 19 – 35) having a thickness of 20 – 40 mils (0.020 to 0.040 inches; column 4, lines 35 – 53) and defining a rim about its upper extremity (column 5, lines 10 – 20); the sidewall extends upwardly with a taper (column 3, lines 46 – 51); the rim has a thickness (height) which

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is greater than the thickness of the adjacent portion of the sidewall (it has a height of 0.3 inches, which is more than 2 mils greater than the thickness of the entire sidewall; column 5, lines 10 – 20).

With regard to Claims 5 – 6, 25 – 26, and 45 – 46, as stated previously, the rim has a thickness and height of 0.3 inches, which is 3 times the thickness of the sidewall.

With regard to Claims 7 – 9 and 27 – 29 and 47 – 49, as stated previously, the cup comprises polystyrene, and is therefore transparent.

With regard to Claims 13 – 15 and 33 – 35, as stated previously, the sidewall thickness is 20 – 40 mils.

With regard to Claim 16 the base is circular (column 3, lines 21 – 25), and the sidewall includes a pattern which alters the cylindrical character of the sidewall and is operative as a grip portion (a portion of the sidewall is fluted, and can therefore be gripped; column 3, lines 51 – 64).

With regard to Claims 2 – 4, 10 – 12, 17 – 21, 22 – 24, 30 – 32 and 36 – 44, Willbrandt fails to disclose a container in which the ratio of the height of the tumbler to the inside diameter of the sidewall is 2 – 4, and the ratio of the height of the tumbler to the inside diameter of the sidewall is 1 – 5, and the ratio of the height of the tumbler to the inside diameter of the sidewall is 1.3 – 1.7, and the volume is 12 – 15 ounces, and the volume is 16 ounces, and the volume is 1.5 – 4 times the volume of the parison, and the height is 5.75 – 6 inches, and the height is 4.6 – 4.8 inches, and the sidewall has a taper angle of 1 – 4.5 degrees, and a taper angle of 2.75 to 4 degrees, and a taper angle of 3 degrees, and a taper angle of 2.5 – 10 degrees and a taper angle of 4.5 – 10 degrees, and a taper angle of 1 – 10 degrees. However, Willbrandt discloses a container

in which the sidewall has a taper angle of less than 1 degree (the corner is tapered and has a radius of 0.0930 inch; column 3, lines 46 – 51), and a ratio of the height of the tumbler to the inside diameter of the sidewall of 1.75 (column 4, lines 54 – 65), and a volume of 32 ounces (column 4, lines 35 – 53) and a height of 6.9 inches (column 4, lines 35 – 53).

It therefore would have been obvious for one of ordinary skill in the art to modify the angle of taper, and the ratio of the height of the tumbler to the inside diameter of the sidewall, and the volume (which will determine the volume relative to the parison), and the height, as these parameters would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result since the Willbrandt reference shows the different parameters. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

As to the claimed aspect of the cup being ‘injection blow molded,’ Willbrandt discloses that the cup is made by injection molding or blow molding; the claimed aspect of the cup being injection blow molded therefore reads on Willbrandt.

With regard to Claims 5 – 6, 25 – 26, and 45 – 46, as stated previously, the rim has a thickness and height of 0.3 inches, which is 3 times the thickness of the sidewall.

With regard to Claims 7 – 9, 27 – 29 and 47 – 49, as stated previously, the cup comprises polystyrene, which is transparent.

With regard to Claim 16 the base is circular (column 3, lines 21 – 25), and the sidewall includes a pattern which alters the cylindrical character of the sidewall and is operative as a grip portion (a portion of the sidewall is fluted, and can therefore be gripped; column 3, lines 51 – 64).

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9. Claims 78 – 79 and 81 rejected under 35 U.S.C. 103(a) as being unpatentable over Mc Chesney et al (U.S. Patent No. 3,984,498).

Mc Chesney et al disclose a container consisting essentially of a blend of polystyrene – acrylonitrile copolymer with styrene – butadiene copolymer as discussed above. With regard to Claims 78 – 79 and 81, Mc Chesney et al. fail to disclose a container in which the amount of butadiene in the copolymer is from 2 – 40 percent, and a container which consists of a blend of polystyrene – acrylonitrile with styrene – butadiene copolymer. However, Mc Chesney discloses a container in which the amount of butadiene in the copolymer is 51 percent (a major proportion; column 2, lines 51 – 61).

It would be obvious for one of ordinary skill in the art to vary the amount of butadiene in the copolymer and the amount of copolymer blend in the polymeric material, since the amount of butadiene in the copolymer and the amount of copolymer blend in the polymeric material would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end result, since the Mc Chesney reference shows the two parameters.

In re Boesch and Slaney, 205 USPQ 215 (CCPA 1980).

10. Claims 83 – 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willbrandt (U.S. Patent No. 5,433,337) in view of Kawakami et al. (U.S. Patent No. 6001439).

Willbrandt discloses an injection blow molded container comprising a styrene polymer as discussed above. With regard to Claims 83 – 85, Willbrandt fails to disclose a container comprising 8 – 20% by weight of a mineral filler.

Kawakami et al disclose that it is well known in the art to injection blow mold (stretch blow mold; column 13, lines 45 – 57) a polymer comprising styrene – butadiene (column 11,

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lines 26 – 48) comprising 0 – 50% by weight of a mineral filler (column 11, lines 8 – 25), for the purpose of forming a container which has high barrier properties (column 1, lines 5 – 18).

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for 8 – 20% by weight of a mineral filler in Willbrandt in order to form a container which has high barrier properties as taught by Kawakami et al.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-2364. FAX communications should be sent to (703) 305-3599. FAXs received after 4 P.M. will not be processed until the following business day.

M.A.P.

m.q.p.

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

1/14/02